

Comal County Environmental Health

OSSF Inspection Sheet

Installer Name: _____

OSSF Installer #: _____

1st Inspection Date: _____

2nd Inspection Date: _____

3rd Inspection Date: _____

Inspector Name: _____

Inspector Name: _____

Inspector Name: _____

Permit#:

Address:

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
1	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials		285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)				
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards		285.91(10) 285.30(b)(4) 285.31(d)				
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)		285.32(a)(1)				
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot		285.32(a)(3)				
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)		285.32(a)(5)				
6	PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(B) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(A) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(ii)(I)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

Inspector Notes:

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If Single Tank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1) (E) 285.91(2) 285.32(b)(1) (F) 285.32(b)(1)(E) (iii) 285.32(b)(1)(E)(ii) (II) 285.32(b)(1)(E)(ii) (I) 285.32(b)(1)(E) (i) 285.32(b)(1) (D) 285.32(b)(1)(C) (ii) 285.32(b)(1)(C) (i) 285.32(b)(1) (B) 285.32(b)(1) (A) 285.32(b)(1)(E)(iv)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used		285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
10	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
11	SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed						
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number						
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
18	DISPOSAL SYSTEM Evapo-transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

**Comal County Environmental Health
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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
19	DISPOSAL SYSTEM Drip Irrigation		285.33(c)(3)(A)-(F)				
20	DISPOSAL SYSTEM Soil Substitution		285.33(d)(4)				
21	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(4) 285.33(a)(3) 285.33(a)(1) 285.33(a)(2)				
22	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(3) 285.33(a)(2) 285.33(a)(4) 285.33(a)(1)				
23	DISPOSAL SYSTEM Mound		285.33(a)(3) 285.33(a)(1) 285.33(a)(2) 285.33(a)(4)				
24	DISPOSAL SYSTEM Other (describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)				
25	DRAINFIELD Absorptive Drainline 3" PVC or 4" PVC						
26	DRAINFIELD Area Installed						
27	DRAINFIELD Level to within 1 inch per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)				
28	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media						
29	DRAINFIELD Pipe and Gravel - Geotextile Fabric in Place		285.33(b)(1)(E)				
30	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End Plates w/Splash Plate, Inspection Port & Closed End Plates in Place (per manufacturers spec.)		285.33(c)(2)				
31	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33(d)(1)(C)(i)				

**Comal County Environmental Health
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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
32	EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart		285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B) 285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)				
33	AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines.		285.32(c)(1)				
34	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions						
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.						
36	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
37	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						
38	PUMP TANK Secondary restraint system provided						
39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried						

**Comal County Environmental Health
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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
40	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?		285.33(d)(2)(G)(iii)(II) 285.33(d)(2)(G)(iii)(III) 285.33(d)(2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)				
41	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G) (i)285.33(d)(2) (A)285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



COMAL COUNTY

ENGINEER'S OFFICE

Permit of Authorization to Construct an On-Site Sewage Facility Permit Valid For One Year From Date Issued

Permit Number: 114561
Issued This Date: 11/14/2024
This permit is hereby given to: Allen & Mary Webb

To start construction of a private, on-site sewage facility located at:

944 SCENIC HILLS DR
CANYON LAKE, TX 78133

Subdivision: Scenic Heights
Unit: 1
Lot: 150
Block: n/a
Acreage: 0.1100

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Drip Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

Call (830) 608-2090 to schedule inspections.



ON-SITE SEWAGE FACILITY APPLICATION

Date 7-3-2023**RECEIVED**

By Kathy Griffin at 1:29 pm, Jul 01, 2024

Permit Number 114561

RENEWAL

1. APPLICANT / AGENT INFORMATION

Owner Name Allen and Mary Webb
Mailing Address 2174 Colleen Drive
City, State, Zip Canyon Lake, TX 78133
Phone # 281-224-6396
Email arwebb4@gmail.comAgent Name Day and Stokosa Engineering, PC
Agent Address PO Box 663, 725 FM-1103
City, State, Zip Cibola, TX 78108
Phone # (210)823-0768
Email dday@daystokosaeng.com

2. LOCATION

Subdivision Name Scenic Heights Unit 1 Lot 150 Block _____
Survey Name / Abstract Number _____ Acreage 0.11 acres
Address 944 Scenic Hills Drive City Canyon Lake State TX Zip 78133

3. TYPE OF DEVELOPMENT

☒ Single Family ResidentialType of Construction (House, Mobile, RV, Etc.) HouseNumber of Bedrooms 2Indicate Sq Ft of Living Area 1064☐ Non-Single Family Residential

(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)

Type of Facility _____

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____

Restaurants, Lounges, Theaters - Indicate Number of Seats _____

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____

Travel Trailer/RV Parks - Indicate Number of Spaces _____

Miscellaneous _____

Estimated Cost of Construction: \$ 250,000 +/- (Structure Only)

Is any portion of the proposed OSSF located in the United States Army Corps of Engineers (USACE) flowage easement?

☐ Yes ☒ No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)Source of Water ☒ Public ☐ Private Well

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Signature of Owner

Mary WebbMary WebbAllen Webb

Date

7-3-20237/3/236/30/246/30/24



COMAL COUNTY

ENGINEER'S OFFICE

Permit of Authorization to Construct an On-Site Sewage Facility Permit Valid For One Year From Date Issued

Permit Number: 114561
Issued This Date: 07/03/2023
This permit is hereby given to: Allen & Mary Webb

To start construction of a private, on-site sewage facility located at:

944 SCENIC HILLS DR
CANYON LAKE, TX 78133

Subdivision: Scenic Heights
Unit: 1
Lot: 150
Block: n/a
Acreage: 0.1100

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Drip Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

Call (830) 608-2090 to schedule inspections.



ON-SITE SEWAGE FACILITY APPLICATION

Date 7-3-2023Permit Number 114561

RENEWAL

1. APPLICANT / AGENT INFORMATION

Owner Name Allen and Mary Webb
Mailing Address 2174 Colleen Drive
City, State, Zip Canyon Lake, TX 78133
Phone # 281-224-6396
Email arwebb4@gmail.comAgent Name Day and Stokosa Engineering, PC
Agent Address PO Box 663, 725 FM-1103
City, State, Zip Cibola, TX 78108
Phone # (210)823-0768
Email dday@daystokosaeng.com

2. LOCATION

Subdivision Name Scenic Heights Unit 1 Lot 150 Block _____
Survey Name / Abstract Number _____ Acreage 0.11 acres
Address 944 Scenic Hills Drive City Canyon Lake State TX Zip 78133

3. TYPE OF DEVELOPMENT

☒ Single Family ResidentialType of Construction (House, Mobile, RV, Etc.) HouseNumber of Bedrooms 2Indicate Sq Ft of Living Area 1064☐ Non-Single Family Residential

(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)

Type of Facility _____

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____

Restaurants, Lounges, Theaters - Indicate Number of Seats _____

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____

Travel Trailer/RV Parks - Indicate Number of Spaces _____

Miscellaneous _____

Estimated Cost of Construction: \$ 250,000 +/- (Structure Only)

Is any portion of the proposed OSSF located in the United States Army Corps of Engineers (USACE) flowage easement?

☐ Yes ☒ No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)Source of Water ☒ Public ☐ Private Well

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.

- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..

- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Signature of Owner

Mary Webb

Date

7-3-2023
8/7/23



COMAL COUNTY

ENGINEER'S OFFICE

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This permit is hereby given to: Allen & Mary Webb

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Block: n/a
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Call (830) 608-2090 to schedule inspections.



ON-SITE SEWAGE FACILITY APPLICATION

REVISED

2:20 pm, Jul 11, 2022

Date _____

Permit Number _____

1. APPLICANT / AGENT INFORMATION

Owner Name Allen and Mary Webb
Mailing Address 2174 Colleen Drive
City, State, Zip Canyon Lake, TX 78133
Phone # 281-224-6396
Email arwebb4@gmail.com

Agent Name Day and Stokosa Engineering, PC
Agent Address PO Box 663, 725 FM-1103
City, State, Zip Cibolo, TX 78108
Phone # (210)823-0768
Email dday@daystokosaeng.com

2. LOCATION

Subdivision Name Scenic Heights Unit 1 Lot 150 Block _____
Survey Name / Abstract Number _____ Acreage 0.11 acres
Address 944 Scenic Hills Drive City Canyon Lake State TX Zip 78133

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) House

Number of Bedrooms 2

Indicate Sq Ft of Living Area 1064

☐ Non-Single Family Residential

(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)

Type of Facility _____

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Miscellaneous _____

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Source of Water ☒ Public ☐ Private Well

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Mary Webb
Signature of Owner Allen Webb

6/27/22
Date 6-27-22

Planning Materials & Site Evaluation as Required Completed By Day and Stokosa Engineering, PC

System Description Aerobic drip irrigation system

Size of Septic System Required Based on Planning Materials & Soil Evaluation

Tank Size(s) (Gallons) 500 gallon aerobic unit Absorption/Application Area (Sq Ft) 912

Gallons Per Day (As Per TCEQ Table III) 180 water saving devices

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)

Is the property located over the Edwards Recharge Zone? ☐ Yes ☒ No

(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? ☒ Yes ☐ No

Is there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No

(If yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to Construct will not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)

Is this property within an incorporated city? ☐ Yes ☒ No

If yes, indicate the city: _____

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.


Signature of Designer

05-19-22
Date



202206027054 06/10/2022 09:47:47 AM 1/1

AFFIDAVIT TO THE PUBLIC

THE COUNTY OF COMAL
STATE OF TEXAS

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

According to Texas Commission on Environmental Quality Rules for On-Site Sewage Facilities (OSSF's), this document is filed in the Deed Records of Comal County, Texas.

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (commission) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the commission primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The commission, under the authority of the TWC and the Texas Health and Safety code, requires owner's to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the commission requires a recorded affidavit. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This recorded affidavit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any guarantee by the commission that the appropriate OSSF was installed.

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (Insert legal description):

944 Scenic Hills Drive, Scenic Heights Subdivision Lot 1, Unit 150, Comal County

The property is owned by (Insert owner's full name): Allen Webb

Webb Mary & Allen R III

This OSSF must be covered by a continuous maintenance contract for the first two years. After the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days or maintain the system personally.

Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office.

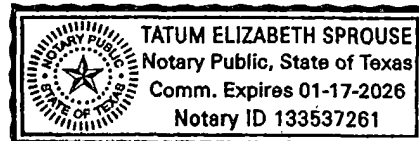
WITNESS BY HAND(S) ON THIS 7 DAY OF June, 2022

Mary Webb
Allen Webb
Owner(s) signature(s)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 7 DAY OF

June, 2022

[Signature]
Notary Public, State of Texas



Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
06/10/2022 09:47:47 AM
CASHONE 1 Page(s)
202206027054



Bobbie Koepf

**J.B. Septic Systems, Inc.
Two-Year Initial Service Policy**

System Owner:
Allen Webb

Mary Webb

Brand Name: Clearstream Wastewater System

System Name: Primary

Serial Number: _____

Model Number: _____

Permit Number: _____

Effective: _____ thru _____

Site Legal Description:

944 Scenic Hills Drive, Lot 150, Unit 1

Scenic Heights Subdivision, Comal County

J. B. Septic Maintenance, Inc. will inspect and service your Clearstream Aerobic Treatment Plant once every four months for a period of two years. The service policy starts the date the "License To Operate" is issued by the permitting authority. This initial two year Service Policy will be at no additional charge to the property owner as required by State guidelines.

Before this initial two-year service policy expires, JB Septic Maintenance, Inc will notify you. Upon renewal of the contract, a copy of the new contract shall be submitted to the permitting authority. If the property owner or maintenance company desire to discontinue the maintenance contract, the maintenance company shall notify, in writing, the permitting authority at least 30 days prior to the date service will cease.

Testing and Reporting

J.B. Septic Maintenance, Inc. shall test and report on this system as required by rule on the following:

1. An Inspection/Service Call every 4 months, which includes inspections, adjustment, and servicing of the mechanical and electrical component parts as necessary to ensure proper function.
2. An effluent quality inspection every 4 months, consisting of a visual check for color, turbidity, scum overflow, and an examination for odors.
3. A sample shall be pulled from the aeration tank every 4 months to determine if there is an excess of solids in the treatment plant. If the test results determine a need for solids removal, the user will be notified and the system will be pumped upon owner authorization.
4. If any improper operation is observed which cannot be corrected at the time, the user shall be notified immediately in writing of the conditions and the estimated date of correction.
5. If required, a chlorine residual test will be taken at each visit. (BOD and TSS annually on commercial only.) If a grab test is required, the Owner will be responsible for the cost of the grab test.

The owner is responsible for keeping chlorine (Bleach) in the chlorinator as well as the cost of the chlorine.

J.B. Septic Maintenance, Inc. has been certified by the manufacturer of your system, and will be responsible for fulfilling the requirements of this Maintenance Contract, as well as responding to any alarms and/or addressing any concerns by the owner.

VIOLATIONS OF WARRANTY including shutting off the electric current to the system for more than 24 hours, disconnecting the alarm system, restricting ventilation to the aerator, overloading the system above its rated capacity, or introducing excessive amounts of harmful matter into the system, or any other form of unusual abuse.

REVISED

2:15 pm, Jul 11, 2022

Page 2 of 2

This Policy Does Not Include;

1. Cost of Pumping Sludge From Unit If Necessary.
2. Cost of System Repair Due to Damage or Parts Failure Due to Neglect.
3. Cost of Replacement of "Normal Wear & Tear" Items During Routine Maintenance Visits.

The Maintenance Company and the Owner agree to abide by the service policy as stated above.

MAINTENANCE COMPANY:

J.B. Septic Maintenance, Inc.
P.O. Box 1609
Helotes, Texas 78023
(830) 931-0292

Installation Company:

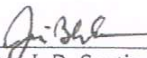
J.B. Septic Systems, Inc.
P.O. Box 1609
Helotes, Texas 78023

MANUFACTURER:

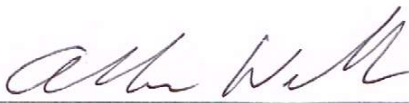
Clearstream Wastewater Systems, Inc.
P.O. Box 7568
Beaumont, Texas 77726-7568
(409) 755-1500

Permitting Authority:

Comal County Office of Environmental Health
195 David Jonas Drive
New Braunfels, TX 78676
(830) 608-2094



Jim Blake, Sr., J. B. Septic Maintenance, Inc.



System Owner
Mary Webb

Service Company Operator License Number: MP0000892

Site Evaluation Results

Soil Boring/ Backhoe Pit Number <u>1</u>		Surface Elevation _____		Proposed Depth Elevation _____
Depth (Feet)	Soil Texture	Texture Class (Ia, Ib, II, III, IV)	% Gravel (Required when Texture Class is II or III)	Observation Notes (Restrictive Horizon, Size of Gravel, Groundwater, Mottling, Fractured Rock, Recent Weather, etc.)
0	Silty rocky loam	III		Rock at 2'-0"
1				
2 2'-0"				
3				
4				
5				
6				

Soil Boring/ Backhoe Pit Number <u>2</u>		Surface Elevation _____		Proposed Depth Elevation _____
Depth (Feet)	Soil Texture	Texture Class (Ia, Ib, II, III, IV)	% Gravel (Required when Texture Class is II or III)	Observation Notes (Restrictive Horizon, Size of Gravel, Groundwater, Mottling, Fractured Rock, Recent Weather, etc.)
0	Silty rocky loam	III		Rock at 2'-0"
1				
2 2'-0"				
3				
4				
5				
6				

REVISED

2:16 pm, Jul 11, 2022

Engineer's Report
for the modifications to the
Subsurface Sanitary Sewage Disposal
System
For the
Webb Property

Location:

944 Scenic Hills Drive
Canyon Lake
Comal County, TX

Date: March 10, 2022

Revisions: July 6, 2022

DAY | STOKOSA
ENGINEERING P.C.



1.0 Purpose

This report shall outline the design of the proposed drip tubing septic system for the property located at 944 Scenic Hills Drive in Canyon Lake Subdivision located in Comal County, Texas.

2.0 Project Background

The proposed project site consists of a 0.11-acre parcel and is in the municipality of Canyon Lake in Comal County, Texas.

3.0 Proposed Project

The applicant wishes to construct a two-bedroom, 1,064 sq.ft. home on the property and have a septic system designed accordingly.

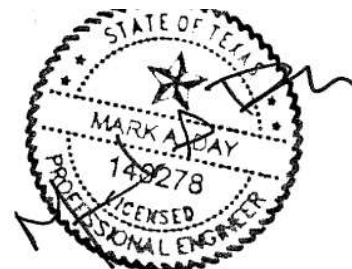
4.0 Design Flows

According to Title 30, TAC Subchapter 285.91, Table 3 of the TCEQ Onsite Sewage Facility Rules Compilation, the design flow for a two-bedroom home with 1,000 sq. ft. of livable space is 180 gal/day. See Table 3 below:

Type Of Facility	Usage Rate Gallons/Day (Without Water Saving Devices)	Usage Rate Gallons/Day (With Water Saving Devices)
Single family dwelling (one or two bedrooms)-less than 1,500 square feet.	225	180
Single family dwelling (three bedrooms)-less than 2,500 square feet.	300	240
Single family dwelling (four bedrooms)-less than 3,500 square feet	375	300
Single family dwelling (five bedrooms)-less than 4,500 square feet.	450	360
Single family dwelling (six bedrooms)-less than 5,500 square feet.	525	420
Greater than 5,500 square feet, each additional 1,500 square feet or increment thereof.	75	60

5.0 Proposed Treatment Unit

This office is proposing an “all-in-one” trash tank and aerator tank aerobic unit (Refer to corresponding engineering plans). According to Title 30, TAC Subchapter 285.91, Table 2 of the TCEQ Onsite Sewage Facility Rules Compilation, the minimum required volume for an aerobic unit for a two-bedroom, 1,064 sq. ft. home is 360 gallons. See Table 2 below. This office is Model AA500-4075 from American Precast Concrete Tanks (500 GPD treatment capacity, see corresponding cut sheet attached at the end of this report).



Aerobic Treatment Unit Sizing For Single Family Residences, Combined Flows From Single Family Residences, or Multi-Unit Residential Developments

Number of bedrooms/living area of home	Minimum Aerobic Tank Treatment Capacity (gallons per day)
Three bedrooms and < 2,501 sq. ft.	360
Four bedrooms and < 3,501 sq. ft. or Less than four bedrooms and 2,500 < sq. ft. < 3,501	480
Five bedrooms and < 4,501 sq. ft. or Less than five bedrooms and 3,500 < sq. ft. < 4,501	600
Six bedrooms and < 5,501 sq. ft. or Less than six bedrooms and 4,500 < sq. ft. < 5,501	720



6.0 Sewage Disposal System

6.1 Soil Conditions

This office visited the subject property for a soil evaluation on February 14, 2022. The onsite soils were classified as Class III soils. (See Site Evaluation form enclosed in the Appendix Section of this report.).

6.2 Absorption Area Design

According to Title 30, TAC Subchapter 285.91, Table 1 of the TCEQ Onsite Sewage Facility Rules Compilation, sites with Class III soils shall use a design application rate of 0.1 gal./sq. ft./day. See Table 1 below:

Table I
Effluent Loading Requirements Based On Soil Classification

Soil Class (Refer to Table VI)	Long Term Application (Ra) *Gallons Per Absorptive Area (SF) Per Day
Ia	>0.50
Ib	0.38
II	0.25
III	0.20
IV	0.1

$$\text{Required Area} = \frac{\text{Flow Rate (GPD)}}{\text{Application Rate (GPD/Sq.Ft.)}} = \frac{180 \text{ (GPD)}}{0.2 \text{ (GPD/sq.ft.)}} = 900 \text{ sq. ft.}$$

$$\text{Required Length of Drip Tubing} = \frac{\text{Required Area (sq.ft.)}}{\text{Spacing of drip tubing (ft)}} = \frac{900 \text{ sq.ft.}}{2 \text{ ft}} = 450 \text{ ft.}$$

This office is proposing one field of drip tubing consisting of 18 drip lines, each 25 feet in length for a total of 450 feet of tubing. Pressure reducing emitters shall be installed on

the inside of the drip tubing and spaced every 2 feet. There shall be an air release valve or vacuum breaker installed at the highest point of the supply line. A Check valve shall be installed at the end main return line back to the pump tank. The supply and return lines to and from the pump station shall be 1" SCH. 40 piping. Drip tubing shall be buried a minimum of 6" and backfilled with Class II or III soils.

7.0 Proposed Pump and Dosing Calculations

This section of this report will cover the dosage to the drip field and flushing. This office is proposing a Clearstream P-20 submersible effluent pump (1/2 HP, 20 GPM) and a Model AA500-4075 ATU and Pump chamber (See attached cut sheets for both at the end of this report).

7.1 Proposed Pump Chamber and Pump

The proposed AA500-4075 ATU from American Precast Concrete Tanks has a pump tank with inside dimensions of 5'-0" L and 4'-7", and a height of 52" from the bottom of the pump chamber to the inlet. This office is assuming the static head (height from bottom of pump tank to inlet of drip field) to be 5.42' based on existing site grade. This office will conservatively assume a static head of 6 feet.

Static Head = 6 feet

Flow in GPM for each dose = 5 GPM (See Section 7.2 of report)

Total Dynamic Head = Static Head + Friction Head (Hf)

Hf was calculated via Excel. See below:

Head Loss Calculator for Pump Chamber Design												
Coeff. Of Friction, C:		130										
Flow:		5 gpm										
Diameter, D		1 inches										
Equivalent Length of Straight Pipe for Valves and Fittings (feet)												
Screwed Fittings		Pipe Size										
		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Elbows	Regular 90 deg	2.3	3.1	3.6	4.4	5.2	6.6	7.4	8.5	9.3	11.0	13.0
	Long radius 90 deg	1.5	2.0	2.2	2.3	2.7	3.2	3.4	3.6	3.6	4.0	4.6
	Regular 45 deg	0.3	0.5	0.7	0.9	1.3	1.7	2.1	2.7	3.2	4.0	5.5
Tees	Line flow	0.8	1.2	1.7	2.4	3.2	4.6	5.6	7.7	9.3	12.0	17.0
	Branch flow	2.4	3.5	4.2	5.3	6.6	8.7	9.9	12.0	13.0	17.0	21.0
Return Bends	Regular 180 deg	2.3	3.1	3.6	4.4	5.2	6.6	7.4	8.5	9.3	11.0	13.0
Valves	Globe	21.0	22.0	22.0	24.0	29.0	37.0	42.0	54.0	62.0	79.0	110.0
	Gate	0.3	0.5	0.6	0.7	0.8	1.1	1.2	1.5	1.7	1.9	2.5
	Angle	12.8	15.0	15.0	15.0	17.0	18.0	18.0	18.0	18.0	18.0	18.0
	Swing Check	7.2	7.3	8.0	8.8	11.0	13.0	15.0	19.0	22.0	27.0	38.0
Strainer			4.6	5.0	6.6	7.7	18.0	20.0	27.0	29.0	34.0	42.0



Quantity	Pipe Fitting	Equivalent Length (ft)	Hf
2	1" dia. 90 deg. Elbows	5.2	0.262
0	1" 45 deg. Elbows	1.3	0.000
10	1" Standard Tee	6.6	1.662
1	1" Union Coupling	3.5	0.088
1	1" Gate valve	0.8	0.020
1	1" Check valve	15	0.378
1	1" Straight pipe	100	2.518
		Total Sum =	4.927

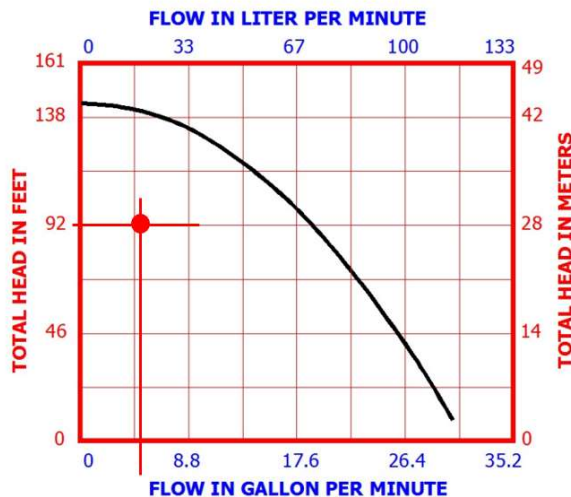
Total Dynamic Head = Static Head + Friction Head (Hf) + Pressure Head

The most pressure anticipated throughout the entire system is 35 psi, the pressure head is calculated as follows:

$$35 \text{ psi} \times 2.31 = 81 \text{ ft}$$

$$\text{Total Dynamic Head} = 6 \text{ feet} + 4.93 \text{ feet} + 81 = 91.93 \text{ ft} \approx \mathbf{92 \text{ feet}}$$

Below is the pump curve for the P-20 pump (Provided by the manufacturer)



From the above pump curve table, the point where the total dynamic head of 92 feet and the flow of 5 GPM intersect (red dot), is well under the P-20 pump curve and the P-20 pump is adequate for this application.

7.2 Dosage from Pump Tank to Drip Zones

Drip tubing lines shall be spaced 2 feet on-center

Pressure reducing emitters inside the drip tubing shall be spaced 2 feet apart on center

$$\text{Emitters Required in each zone} = 450 \text{ ft} / 2 \text{ ft (emitter spacing)} = \mathbf{225 \text{ emitters/zone}}$$

As per specifications from GeoFlow, Wasteflow Classic Drip Line emitters are capable of 1.3 gal./hr flow rate when spaced 2 feet apart at 20 psi (See Cut Sheets in Appendix B of this report.)

Total Emitter Flow @ 20 psi = 225 Emitters x 1.3 GPH = **293 GPH**

= 293 GPH/60 minutes = 4.88 GPM $\approx$ **5 GPM**

Total Pumping Time = 180 GPD/5 GPM = **36 Minutes**

The system shall be dosed every 6 hours (4 doses per day)

Gallons Per Dose = 180 GPD/4 doses per day = **45 gallons per dose**

Pumping Time Per Dose = $\frac{45 \text{ gallons per dose}}{5 \text{ gallons per minute}}$ = **9 minutes**

Inside Area of Pump Tank Compartment = 5'L x 4.583'W = 22.9 ft²

Volume/Inch of pump tank = 22.9 ft² (1"/12) = 1.9 ft³

1.9 ft³ x 7.481 = 14.2 gal./inch



Height Between “Pump On” and “Alarm” Floats:

This office will design the pump system so that there is one day's storage between the pump “on” float setting and the “high level alarm” setting. See below calculations:

$$\frac{180 \text{ gal.}}{14.2 \text{ gal./inch}} = 12.7'' \text{ (Round up to 13'')}$$

There shall be 13” height difference between the pump “on” and alarm “floats.”

Height Between “Alarm” Float and Inlet:

As Per Section 285.34(b)(2) of the TCEQ code, there shall be a minimum of 1/3 daily storage between the alarm float and the inlet of the pump tank.

$$\frac{180 \text{ gal./3}}{14.2 \text{ gal./inch}} = 4.23'' \text{ (Round up to 5'')}$$

However, there is 23” remaining between the high-level alarm on setting and the pump tank inlet. There shall be 23” of height between the “alarm on” setting and the tank inlet. See corresponding pump tank detail on the engineering plan set.

The control box shall be set so that the pump doses the drip field for 9 minutes once every six hours. See corresponding plans for float switch configurations in the pump tank.

The pressure on the pump supply line shall be 30-35 psi. A pressure gauge shall be installed on the flush line to measure and set pressure at a normal operating pressure or 15 – 20 psi in the drip lines.

The system shall be equipped with a filtering device capable of filtering particles larger than 100 microns.

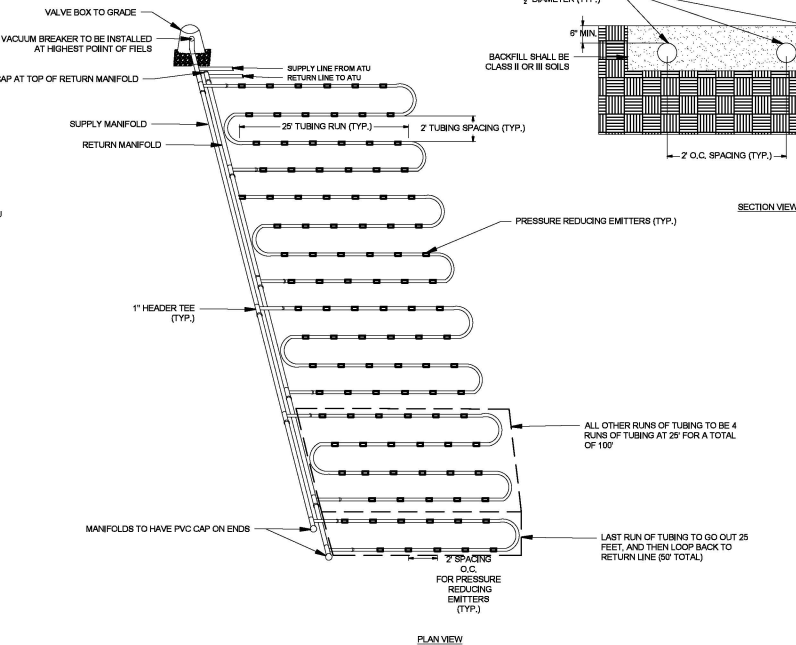
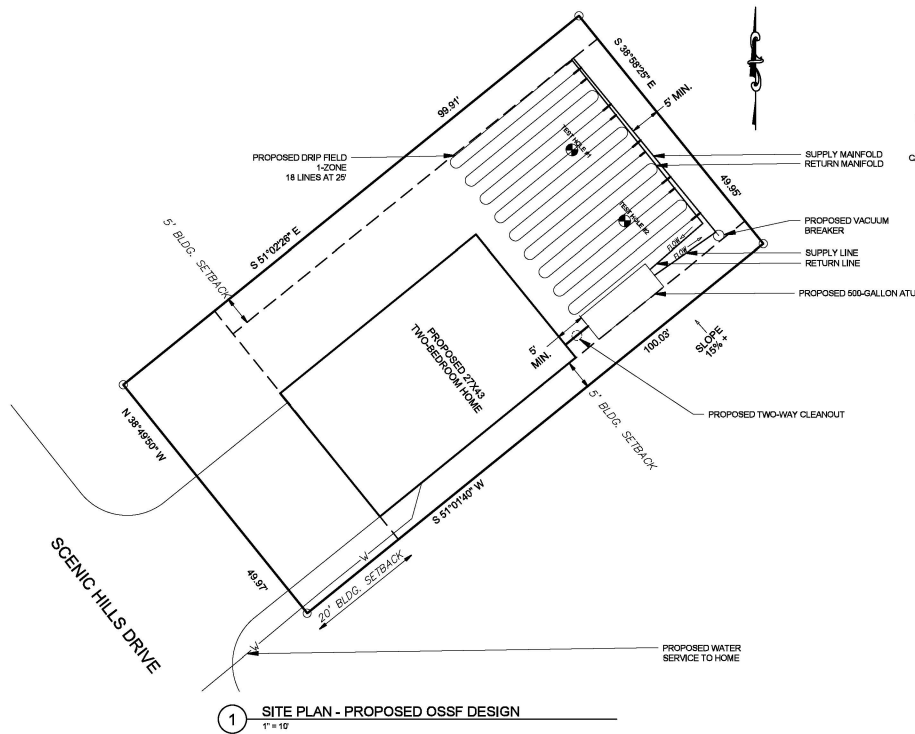
The system shall flush periodically so that any contents in the lines flush back to the pump tank.

A check valve shall be installed on the return manifold prior to the pump tank.

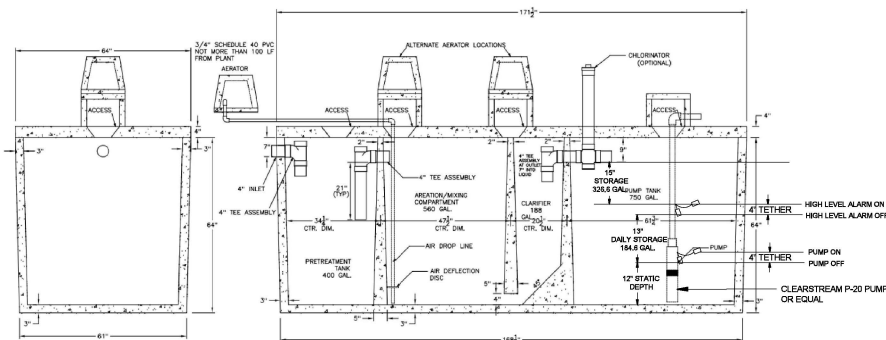


REVISED

3:36 pm, Nov 14, 2024



- NOTES:
1. ALL PIPE FITTINGS TO AND FROM THE DRIP FIELD SHALL BE 1\"/>



- NOTES:
1. THE CONTRACTOR SHALL SEAL PENETRATIONS IN THE TANK SO THAT THE TANK IS WATERTIGHT.
 2. THE PIPE FROM THE SEWER STUB OUT TO THE TREATMENT UNIT SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, POLYVINYL CHLORIDE (PVC) SCHEDULE 40, 30\"/>

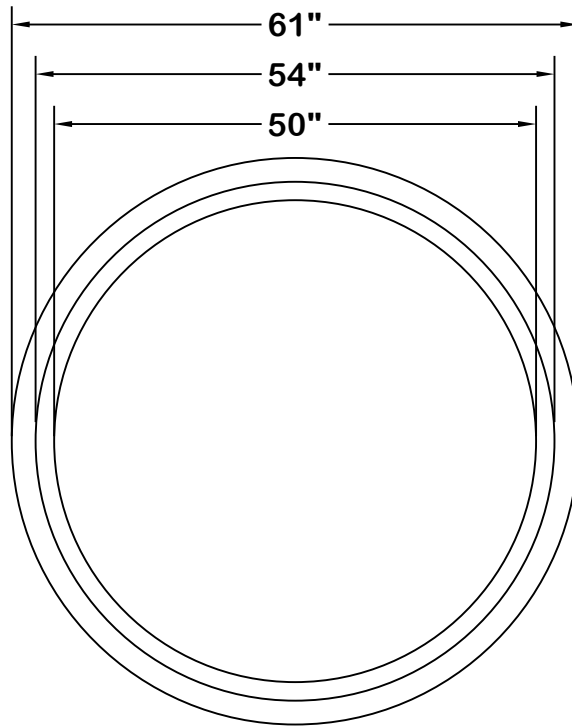
3 500-GALLON AEROBIC TREATMENT UNIT AND PUMP TANK DETAIL
NOT TO SCALE

SITE SPECIFIC NOTE:

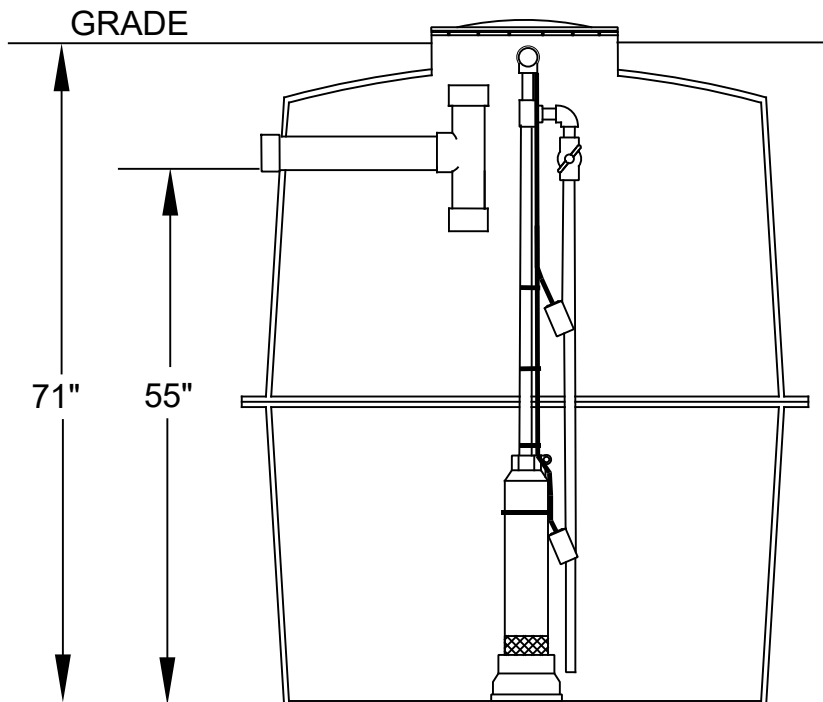
1. IT SHALL BE ENSURED IN THE FIELD, AT THE TIME OF CONSTRUCTION, THAT THERE IS A MINIMUM OF 12\"/>

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

Mark A. Day, PE	
11-13-24	
05-23-22	2022.087
License No. 140278	
DAY STOKOSA ENGINEERING P.C.	
New York Office: 3 Van Wyck Lane Wappingers Falls, New York (845)223-3202	Texas Office: PO Box 063 Cibola, Texas (210)823-0768
Lands of Webb - OSSF Design	
Canyon Lake	Cornwall County, Texas
Site Plan and Details	
AS NOTED	DJD
03-03-22	MAO
SP.1 1 of 1	



PLAN



SECTION

PROPRIETARY AND CONFIDENTIAL

THIS INFORMATION CONTAINED IN THE DRAWING IS THE SOLE PROPERTY OF CLEARSTREAM. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CLEARSTREAM IS PROHIBITED.

DRAWN BY
RC

DATE
03/09/2019

CHECKED BY
XX

DATE
03/09/2019

SCALE:
NTS

SHEET
1 OF 1

500NS-500 PUMP

DWG. NO. **500NS-500 PUMP**



P.O. Box 7568 Beaumont, Texas 77726

NC2-Series Concrete

SPECIFICATIONS

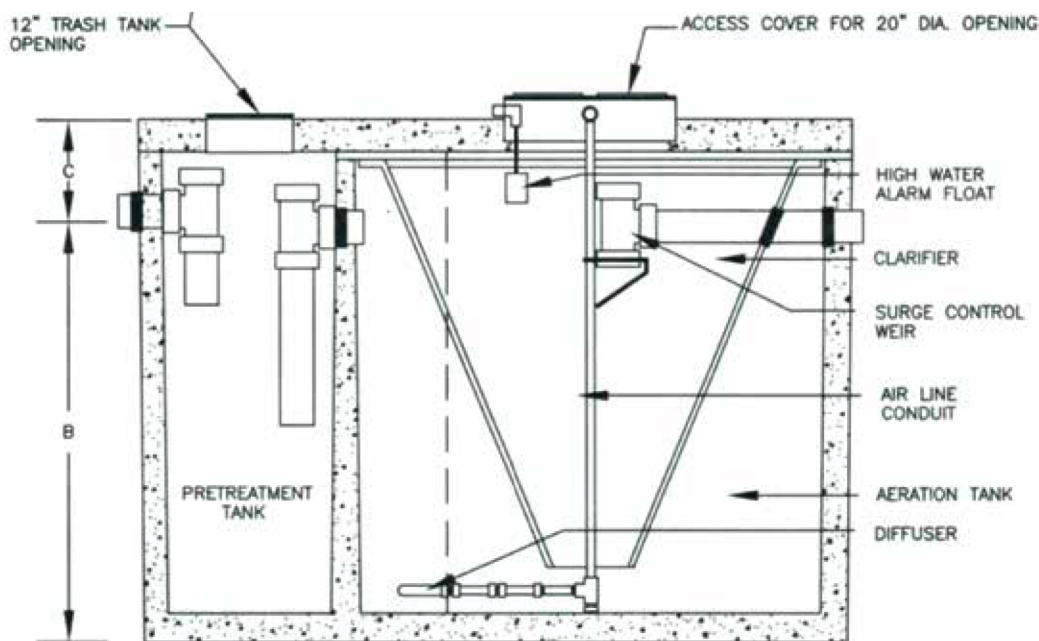
Treatment Capacity _____ 500 to 800 G.P.D.

BOD Loading _____ 1.25 to 1.96 lbs.

Aerator _____ 2.8 to 3.6 scfm

Control Panel _____ Raintight

Electrical _____ 115V/60Hz



DIMENSIONS:

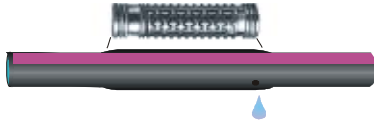
MODEL	Length	B	C	Width	Outlet
500 NC2	104"	60"	10 $\frac{1}{2}$ "	75"	58"
600 NC2	107"	60"	10 $\frac{1}{2}$ "	82"	58"
750 NC2	107"	70"	10 $\frac{1}{2}$ "	82"	68"
800 NC2	107"	72"	10 $\frac{1}{2}$ "	82"	70"

U.S. Patent Numbers

5,221,470 • 5,770,081 • 5,785,854 • US 8,038,874 B2 • US 6,358,411 B1 • US 7,513,994 B2 • US 7,178,677 B1

Other Patents Pending

WASTEFLOW Classic



Flow Rate vs. Pressure

Pressure psi	Head ft.	Flow Rate Classic Dripline
10 psi	23.10 ft.	.81 gph
15 psi	34.65 ft.	1.00 gph
20 psi	46.20 ft.	1.16 gph
25 psi	57.75 ft.	1.31 gph
30 psi	69.30 ft.	1.44 gph
35 psi	80.85 ft.	1.57 gph
40 psi	92.40 ft.	1.68 gph
45 psi	103.95	1.80 gph

Maximum Length of Run vs. Pressure

Flow variation +/- 5%

Pressure psi	Head ft.	Emitter Spacing		
		24"	18"	12"
10 psi	23.10 ft.	170'	165'	100'
15 psi	34.65 ft.	170'	165'	100'
20 psi	46.20 ft.	170'	165'	100'
25 psi	57.75 ft.	170'	165'	100'
30 psi	69.30 ft.	170'	165'	100'
35 psi	80.85 ft.	170'	165'	100'
40 psi	92.40 ft.	170'	165'	100'
45 psi	103.95 ft.	170'	165'	100'

Kd=0.9 Cv < .05

Standard Models:

WF16-4-24 WASTEFLOW Classic 24"/1.3gph

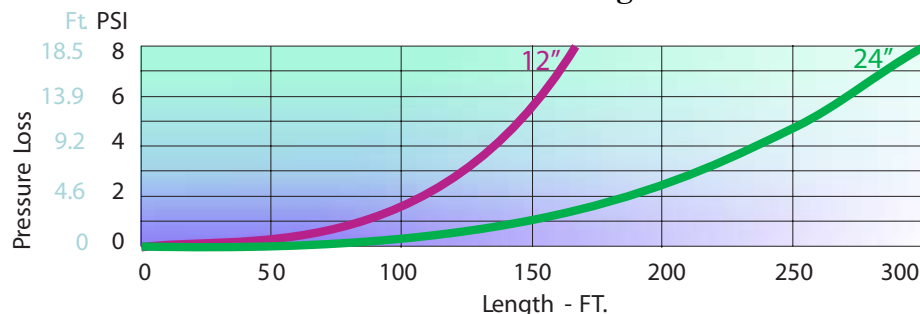
WF16-4-12 WASTEFLOW Classic 12"/1.3gph

Alternate flow rates, diameters and spacing available upon request.

WASTEFLOW Classic Specification

The dripline shall consist of nominal sized one-half inch linear low density polyethylene tubing, with turbulent flow drip emitters bonded to the inside wall. The drip emitter flow passage shall be 0.053" x 0.053" square. The tubing shall have an outside diameter (O.D.) of approximately .64-inches and an inside diameter (I.D.) of approximately .55-inches. The tubing shall consist of three layers; the inside layer shall be *Geoshield®* protection, the middle layer shall be black and the outside layer shall be purple striped for easy identification. The dripline shall have emitters regularly spaced 24" (or 12") apart. The turbulent flow emitters shall be molded from virgin polyethylene resin. The turbulent flow emitters shall have nominal discharge rates of 1.3 gallons per hour at 20 psi. The emitters shall be impregnated with Treflan® to inhibit root intrusion for a minimum period of fifteen years and shall be guaranteed by the manufacturer to inhibit root intrusion for this period. WASTEFLOW Classic dripline shall be Geoflow model number WF16-4-24 (or WF16-4-12).

Wasteflow Classic 1 gph Pressure Loss vs. Length of Run



Geoflow Inc. , Toll Free 800-828-3388, Fax: 415-927-0120, www.geoflow.com

Product sheet- WASTEFLOW Dripline-07E02

From: [Ritzen, Brenda](#)
To: ["arwebb4@gmail.com"](#); [dday@daystokosaeng.com](#)
Subject: Permit 114561
Date: Wednesday, July 3, 2024 3:47:00 PM
Attachments: [image001.png](#)

Re: Allen & Mary Webb
Scenic Heights Unit 1 Lot 150
Application for Permit for Authorization to Construct an On-Site
Sewage Facility (OSSF)

Owner / Agent :

The following information is needed before I can continue processing the referenced permit submittal:

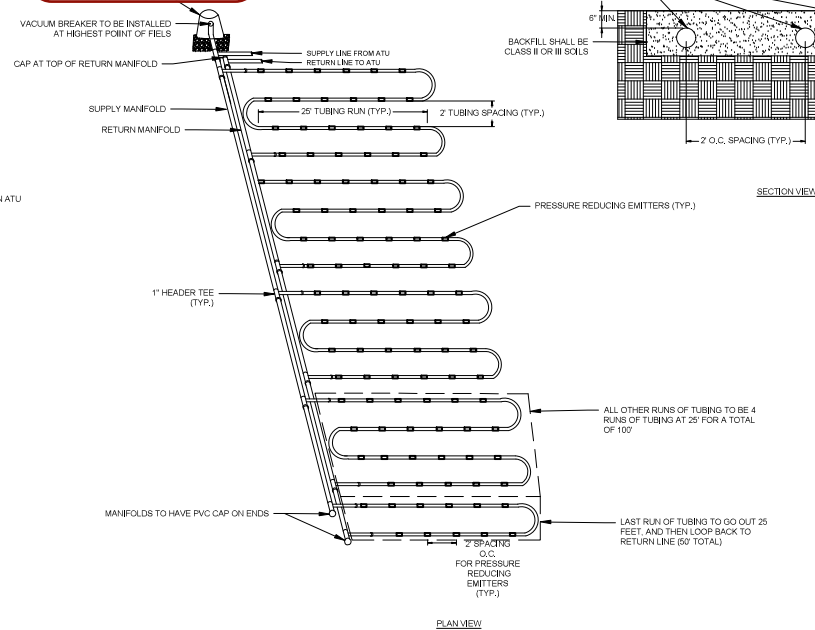
1.  preliminary inspection was completed on 7/02/2024 and observed one test hole at 12 inches, and scattered surface rock. With a loading rate of 0.20 a minimum of 12 inches of soil is required below the drip tubing. Planning materials indicate the tubing will be trenched in 6 inches. Trenching in 6 inches will not allow for the required 12 inches of soil below the drip tubing.
2. Revise as needed and resubmit.

Thank you,



Brenda Ritzen
Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org

VOID

[illegible]

VOID

3 500-GALLON AEROBIC TREATMENT UNIT AND PUMP TANK DETAIL
NOT TO SCALE

Site Plan and Details		
AS NOTED	DVD	SP.1 1 of 1
03-03-22	MAD	

P.O. Box 663
Cibolo, TX 78108

July 11, 2022

Comal County Engineer's Office
Ms. Brenda Ritzen
195 David Jonas Drive
New Braunfels, TX 78132

Re: Webb Property OSSF Design
Scenic Heights Subdivision Unit 1, Lot 150
Canyon Lake, TX
Comal County

Ms. Ritzen:

The following is in response to your June 21, 2022, Comment Letter (via email):

1. See revised permit application enclosed with this submittal. All owners of the subject property have signed the revised application.
2. See maintenance contract enclosed with this submittal. Both the owners and the maintenance provider have signed.
3. A cleanout is now shown on the site plan between the sewer stub and the aerobic unit.
4. Drip installation details (Plan and section views) are now shown on the engineering plan set.
5. See revised engineering report enclosed with this submittal.

Kindly review these plans at your earliest convenience. Please feel free to contact me if you have any other concerns.

Very truly yours,



Derek J. Day

From: [Ritzen, Brenda](#)
To: ["arwebb4@gmail.com"](#); ["Derek Day"](#)
Subject: Permit 114561
Date: Tuesday, June 21, 2022 3:55:00 PM
Attachments: [image001.png](#)

Re: Allen Webb
Scenic Heights Unit 1 Lot 150
Application for Permit for Authorization to Construct an On-Site Sewage Facility (OSSF)

Owner / Agent :

The following information is needed before I can continue processing the referenced permit submittal:

- 1 ✓ The owner name(s) on the permit application must match the owner name(s) as described on the recorded warranty deed. Add Mary Webb to the permit application.
- ✓. The maintenance provider must sign the 2 year initial service policy.
- ✓. Provide a clean-out between the structure and the ATU.
- ✓. Provide drip field installation details (the depth of the drip tubing, the amount and type of backfill, vegetation plan over drip field).
- 5. Revise as needed and resubmit.

Thank you,



Brenda Ritzen
Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org



COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

195 DAVID JONAS DR
NEW BRAUNFELS, TX 78132
(830) 608-2090
WWW.CCEO.ORG

VOID

Date _____

Permit Number 114561

1. APPLICANT / AGENT INFORMATION

Owner Name	<u>Allen Webb</u>	Agent Name	<u>Day and Stokosa Engineering, PC</u>
Mailing Address	<u>2174 Colleen Drive</u>	Agent Address	<u>PO Box 663 , 725 FM-1103</u>
City, State, Zip	<u>Canyon Lake, TX 78133</u>	City, State, Zip	<u>Cibolo, TX 78108</u>
Phone #	<u>281-224-6396</u>	Phone #	<u>(210)823-0768</u>
Email	<u>arwebb4@gmail.com</u>	Email	<u>dday@daystokosaeng.com</u>

2. LOCATION

Subdivision Name Scenic Heights Unit 1 Lot 150 Block _____
Survey Name / Abstract Number _____ Acreage 0.11 acres
Address 944 Scenic Hills Drive City Canyon Lake State TX Zip 78133

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) House

Number of Bedrooms 2

Indicate Sq Ft of Living Area ~~1000~~ 1064

☐ Non-Single Family Residential

(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)

Type of Facility _____

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____

Restaurants, Lounges, Theaters - Indicate Number of Seats _____

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____

Travel Trailer/RV Parks - Indicate Number of Spaces _____

Miscellaneous _____

Estimated Cost of Construction: \$ 250,000 +/- (Structure Only)

Is any portion of the proposed OSSF located in the United States Army Corps of Engineers (USACE) flowage easement?

☐ Yes ☒ No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)

Source of Water ☒ Public ☐ Private Well

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Signature of Owner

Date

4-18-22

VOID

J.B. Septic Systems, Inc.
Two-Year Initial Service Policy

System Owner:
Allen Webb

Brand Name: Clearstream Wastewater System
System Name: Primary
Serial Number: _____
Model Number: _____
Permit Number: _____
Effective: _____ thru _____

Site Legal Description: 944 Scenic Hills Drive, Lot 150, Unit 1
Scenic Heights Subdivision, Comal County

J. B. Septic Maintenance, Inc. will inspect and service your Clearstream Aerobic Treatment Plant once every four months for a period of two years. The service policy starts the date the "License To Operate" is issued by the permitting authority. This initial two year Service Policy will be at no additional charge to the property owner as required by State guidelines.

Before this initial two-year service policy expires, JB Septic Maintenance, Inc will notify you. Upon renewal of the contract, a copy of the new contract shall be submitted to the permitting authority. If the property owner or maintenance company desire to discontinue the maintenance contract, the maintenance company shall notify, in writing, the permitting authority at least 30 days prior to the date service will cease.

Testing and Reporting

J.B. Septic Maintenance, Inc. shall test and report on this system as required by rule on the following:

1. An Inspection/Service Call every 4 months, which includes inspections, adjustment, and servicing of the mechanical and electrical component parts as necessary to ensure proper function.
2. An effluent quality inspection every 4 months, consisting of a visual check for color, turbidity, scum overflow, and an examination for odors.
3. A sample shall be pulled from the aeration tank every 4 months to determine if there is an excess of solids in the treatment plant. If the test results determine a need for solids removal, the user will be notified and the system will be pumped upon owner authorization.
4. If any improper operation is observed which cannot be corrected at the time, the user shall be notified immediately in writing of the conditions and the estimated date of correction.
5. If required, a chlorine residual test will be taken at each visit. (BOD and TSS annually on commercial only.) If a grab test is required, the Owner will be responsible for the cost of the grab test.

The owner is responsible for keeping chlorine (Bleach) in the chlorinator as well as the cost of the chlorine.

J.B. Septic Maintenance, Inc. has been certified by the manufacturer of your system, and will be responsible for fulfilling the requirements of this Maintenance Contract, as well as responding to any alarms and/or addressing any concerns by the owner.

VIOLATIONS OF WARRANTY including shutting off the electric current to the system for more than 24 hours, disconnecting the alarm system, restricting ventilation to the aerator, overloading the system above its rated capacity, or introducing excessive amounts of harmful matter into the system, or any other form of unusual abuse.

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Page 2 of 2

This Policy Does Not Include;

1. Cost of Pumping Sludge From Unit If Necessary.
2. Cost of System Repair Due to Damage or Parts Failure Due to Neglect.
3. Cost of Replacement of "Normal Wear & Tear" Items During Routine Maintenance Visits.

The Maintenance Company and the Owner agree to abide by the service policy as stated above.

MAINTENANCE COMPANY:

J.B. Septic Maintenance, Inc.
P.O. Box 1609
Helotes, Texas 78023
(830) 931-0292
(210) 414-6289

MANUFACTURER:

Clearstream Wastewater Systems, Inc.
P.O. Box 7568
Beaumont, Texas 77726-7568
(409) 755-1500

Installation Company:

J.B. Septic Systems, Inc.
P.O. Box 1609
Helotes, Texas 78023

Permitting Authority:

Comal County Office of Environmental Health
195 David Jonas Drive
New Braunfels, TX 78676
(830) 608-2094

Jim Blake, Sr., J. B. Septic Maintenance, Inc.

System Owner

4-15-22

Service Company Operator License Number: MP0000892

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Engineer's Report
for the modifications to the
Subsurface Sanitary Sewage Disposal
System
For the
Webb Property

Location:

944 Scenic Hills Drive
Canyon Lake
Comal County, TX

Date: March 10, 2022

DAY | STOKOSA
ENGINEERING P.C.

VOID

1.0 Purpose

This report shall outline the design of the proposed drip tubing septic system for the property located at 944 Scenic Hills Drive in Canyon Lake Subdivision located in Comal County, Texas.

2.0 Project Background

The proposed project site consists of a 0.11-acre parcel and is in the municipality of Canyon Lake in Comal County, Texas.

3.0 Proposed Project

The applicant wishes to construct a two-bedroom, 1,000 sq.ft. home on the property and have a septic system designed accordingly.

4.0 Design Flows

According to Title 30, TAC Subchapter 285.91, Table 3 of the TCEQ Onsite Sewage Facility Rules Compilation, the design flow for a two-bedroom home with 1,000 sq. ft. of livable space is 180 gal/day. See Table 3 below:

Type Of Facility	Usage Rate Gallons/Day (Without Water Saving Devices)	Usage Rate Gallons/Day (With Water Saving Devices)
Single family dwelling (one or two bedrooms)– less than 1,500 square feet.	225	180
Single family dwelling (three bedrooms)–less than 2,500 square feet.	300	240
Single family dwelling (four bedrooms)–less than 3,500 square feet	375	300
Single family dwelling (five bedrooms)–less than 4,500 square feet.	450	360
Single family dwelling (six bedrooms)–less than 5,500 square feet.	525	420
Greater than 5,500 square feet, each additional 1,500 square feet or increment thereof.	75	60

5.0 Proposed Treatment Unit

This office is proposing an “all-in-one” trash tank and aerator tank aerobic unit.

According to Title 30, TAC Subchapter 285.91, Table 2 of the TCEQ Onsite Sewage Facility Rules Compilation, the minimum required volume for an aerobic unit for a two-bedroom, 1,000 sq. ft. home is 360 gallons. See Table 2 below. This office is proposing a Clearstream NC2-Series Concrete Aerobic unit, Model 500 NC2 (500 GPD treatment capacity, see corresponding cut sheet attached at the end of this report).

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Aerobic Treatment Unit Sizing For Single Family Residences, Combined Flows From Single Family Residences, or Multi-Unit Residential Developments

Number of bedrooms/living area of home	Minimum Aerobic Tank Treatment Capacity (gallons per day)
Three bedrooms and < 2,501 sq. ft.	360
Four bedrooms and < 3,501 sq. ft. or Less than four bedrooms and 2,500 < sq. ft. < 3,501	480
Five bedrooms and < 4,501 sq. ft. or Less than five bedrooms and 3,500 < sq. ft. < 4,501	600
Six bedrooms and < 5,501 sq. ft. or Less than six bedrooms and 4,500 < sq. ft. < 5,501	720

6.0 Sewage Disposal System

6.1 Soil Conditions

This office visited the subject property for a soil evaluation on February 14, 2022. The onsite soils were classified as Class III soils. (See Site Evaluation form enclosed in the Appendix Section of this report.).

6.2 Absorption Area Design

According to Title 30, TAC Subchapter 285.91, Table 1 of the TCEQ Onsite Sewage Facility Rules Compilation, sites with Class III soils shall use a design application rate of 0.1 gal./sq. ft./day. See Table 1 below:

Table I
Effluent Loading Requirements Based On Soil Classification

Soil Class (Refer to Table VI)	Long Term Application (Ra) *Gallons Per Absorptive Area (SF) Per Day
Ia	>0.50
Ib	0.38
II	0.25
III	0.20
IV	0.1

$$\text{Required Area} = \frac{\text{Flow Rate (GPD)}}{\text{Application Rate (GPD/Sq.Ft.)}} = \frac{180 \text{ (GPD)}}{0.2 \text{ (GPD/Sq.ft.)}} = 900 \text{ sq. ft.}$$

$$\text{Required Length of Drip Tubing} = \frac{\text{Required Area (sq.ft.)}}{\text{Spacing of drip tubing (ft)}} = \frac{900 \text{ sq.ft.}}{2 \text{ ft}} = 450 \text{ ft.}$$

This office is proposing one field of drip tubing consisting of 12 drip lines, each 38 feet in length for a total of 456 feet of tubing. Pressure reducing emitters shall be installed on

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the inside of the drip tubing and spaced every 2 feet. There shall be an air release valve or vacuum breaker installed at the highest point of the supply line. A Check valve shall be installed at the end main return line back to the pump tank. The supply and return lines to and from the pump station shall be 1" SCH. 40 piping. Drip tubing shall be buried a minimum of 6" and backfilled with Class II or III soils.

7.0 Proposed Pump and Dosing Calculations

This section of this report will cover the dosage to the drip field and flushing. This office is proposing a Clearstream P-20 submersible effluent pump (1/2 HP, 20 GPM) and a Clearstream 500NS-500 Pump chamber (See attached cut sheets for both at the end of this report).

7.1 Proposed Pump Chamber and Pump

The proposed Clearstream 500NS-500 Pump chamber has a diameter of 50", an overall height of 71" and a height of 55" from the bottom of the pump chamber to the inlet. This office is assuming the static head (height from bottom of pump tank to inlet of drip field) to be 10' based on existing site grade.

Static Head = 10 feet

Flow in GPM for each dose = 5 GPM (See Section 7.2 of report)

Total Dynamic Head = Static Head + Friction Head (Hf)

Hf was calculated via Excel. See below:

Head Loss Calculator for Pump Chamber Design												
Coeff. Of Friction, C:		130										
Flow:		5 gpm										
Diameter, D		1 inches										
Equivalent Length of Straight Pipe for Valves and Fittings (feet)												
Screwed Fittings		Pipe Size										
		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Elbows	Regular 90 deg	2.3	3.1	3.6	4.4	5.2	6.6	7.4	8.5	9.3	11.0	13.0
	Long radius 90 deg	1.5	2.0	2.2	2.3	2.7	3.2	3.4	3.6	3.6	4.0	4.6
	Regular 45 deg	0.3	0.5	0.7	0.9	1.3	1.7	2.1	2.7	3.2	4.0	5.5
Tees	Line flow	0.8	1.2	1.7	2.4	3.2	4.6	5.6	7.7	9.3	12.0	17.0
	Branch flow	2.4	3.5	4.2	5.3	6.6	8.7	9.9	12.0	13.0	17.0	21.0
Return Bends	Regular 180 deg	2.3	3.1	3.6	4.4	5.2	6.6	7.4	8.5	9.3	11.0	13.0
Valves	Globe	21.0	22.0	22.0	24.0	29.0	37.0	42.0	54.0	62.0	79.0	110.0
	Gate	0.3	0.5	0.6	0.7	0.8	1.1	1.2	1.5	1.7	1.9	2.5
	Angle	12.8	15.0	15.0	15.0	17.0	18.0	18.0	18.0	18.0	18.0	18.0
	Swing Check	7.2	7.3	8.0	8.8	11.0	13.0	15.0	19.0	22.0	27.0	38.0
Strainer			4.6	5.0	6.6	7.7	18.0	20.0	27.0	29.0	34.0	42.0

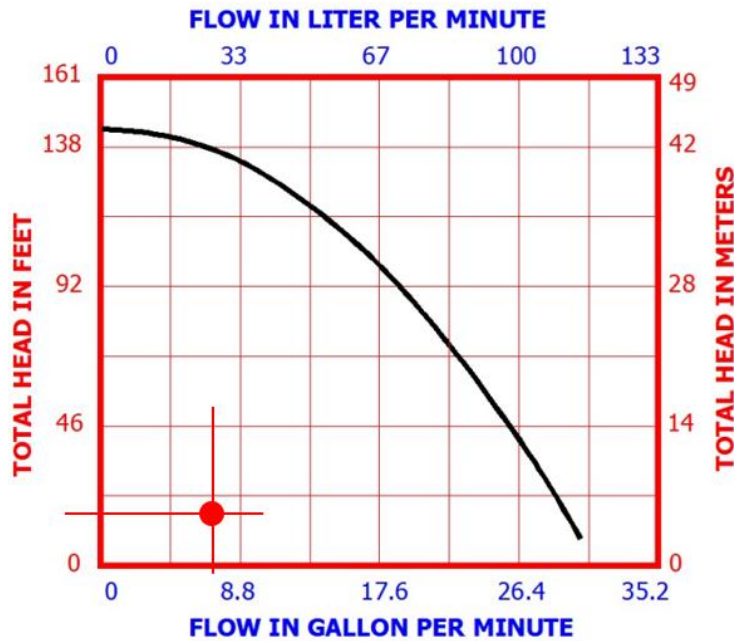
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Quantity	Pipe Fitting	Equivalent Length (ft)	Hf
1	1" dia. 90 deg. Elbows	5.2	0.131
3	1" 45 deg. Elbows	1.3	0.098
13	1" Standard Tee	6.6	2.160
1	1" Union Coupling	3.5	0.088
1	1" Gate valve	0.8	0.020
2	1" Check valve	15	0.755
1	1" Straight pipe	61	1.536
Total Sum =			4.789

Total Dynamic Head = Static Head + Friction Head (Hf)

Total Dynamic Head = 10 feet + 4.8 feet = 14.8 $\approx$ 15 feet

Below is the pump curve for the P-20 pump (Provided by the manufacturer)



From the above pump curve table, the point where the total dynamic head of 15 and the flow of 5 GPM intersect (red dot), is well under the P-20 pump curve and the P-20 pump is adequate for this application.

7.2 Dosage from Pump Tank to Drip Zones

Drip tubing lines shall be spaced 2 feet on-center

Pressure reducing emitters inside the drip tubing shall be spaced 2 feet apart on center

Emitters Required in each zone = 456 ft / 2 ft (emitter spacing) = **228 emitters/zone**

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As per specifications from GeoFlow, Wasteflow Classic Drip Line emitters are capable of 1.3 gal./hr flow rate when spaced 2 feet apart at 20 psi (See Cut Sheets in Appendix B of this report.)

Total Emitter Flow @ 20 psi = 228 Emitters x 1.3 GPH = 296.4 $\approx$ **297 GPH**

= 297 GPH/60 minutes = **4.95 GPM** $\approx$ 5 GPM

Total Pumping Time = 180 GPD/5 GPM = **36 Minutes**

The system shall be dosed every 6 hours (4 doses per day)

Gallons Per Dose = 180 GPD/4 doses per day = **45 gallons per dose**

Pumping Time Per Dose = $\frac{45 \text{ gallons per dose}}{5 \text{ gallons per minute}}$ = **9 minutes**

Volume/Inch of pump tank = $\pi \frac{(50''/12)^2}{4} = 13.64 \text{ ft}^2 (1''/12) = 1.14 \text{ ft}^3$

$1.14 \text{ ft}^3 \times 7.481 = 8.52 \text{ gal./inch}$

Height Between “On” and “Alarm” Floats:

As Per Section 285.34(b)(2) of the TCEQ code, there shall be a minimum of 1/3 daily storage between the alarm float and the inlet of the pump tank. As a conservative measure, this office will calculate this height based on the total daily flow of 180 gallons.

$\frac{180 \text{ gal.}}{8.52 \text{ gal./inch}} = 21.13''$ (Round up to 21.5'')

There shall be 21.5” height difference between the “alarm” float and the inlet.

The control box shall be set so that the pump doses the drip field for 9 minutes once every six hours. See corresponding plans for float switch configurations in the pump tank.

The pressure on the pump supply line shall be 30-35 psi. A pressure gauge shall be installed on the flush line to measure and set pressure at a normal operating pressure or 15 – 20 psi in the drip lines.

The system shall be equipped with a filtering device capable of filtering particles larger than 100 microns.

The system shall flush periodically so that any contents in the lines flush back to the pump tank.

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Appendices

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Appendix A

Planning Materials



Appendix B

Cut Sheets for OSSF Components

FATCO 258 8473

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

GENERAL WARRANTY DEED

Date: January 19, 2020

Grantor: PEDRO SANTILLANO and wife, JOSEPHINE SANTILLANO

Grantor's Mailing Address: 944 Scenic Hills Dr. Canyon Lake, TX 78133

Grantee: MARY WEBB AND ALLEN ROBERT WEBB III

Grantee's Return Mailing Address: 2174 Colleen Drive, Canyon Lake, TX 78133

Consideration: Cash and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

Property (including any improvements):

LOT NUMBER 150, SCENIC HEIGHTS, UNIT NO. 1, COMAL COUNTY, TEXAS, ACCORDING TO PLAT RECORDED IN VOLUME 2, PAGE 35, MAP AND PLAT RECORDS OF COMAL COUNTY, TEXAS.

Reservations from Conveyance: None

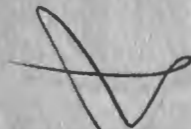
Exceptions to Conveyance and Warranty: This conveyance is made and accepted subject to the following matters (the "Permitted Exceptions"): (i) all easements, building set-back lines, reservations, royalties, mineral reservations, leases, restrictions, zoning ordinances and conditions as recorded with the county clerk of the county where the Property is located, to the extent applicable to and enforceable against the Property; and (ii) all matters that a correct survey of the Property would show. Ad valorem taxes with respect to the property are prorated as of this date (based on estimates, if necessary) and are not subject to readjustment. Grantee expressly assumes payment of all ad valorem taxes and special and general assessments of whatever nature applicable to the property for the year 2021 and subsequent years, as well as all special and general assessments of whatever nature applicable to the property.

Grantor, for the Consideration and subject to the Reservations from Conveyance and the Permitted Exceptions, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever. Grantor binds Grantor and Grantor's heirs and successors to warrant and forever defend all and singular the Property to Grantee and Grantee's heirs, successors, and assigns against every person whomsoever lawfully claiming or to

claim the same or any part thereof, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

The Contract between Grantor as the Seller and Grantee as the Buyer, if any, may contain limitations as to warranty or other agreed matters; to the extent that such Contract provides for limitations or other agreed matters that will survive the closing and this conveyance, then such limitations or other agreed matters are hereby deemed incorporated by reference. The warranty of title contained in this Deed is hereby expressly excluded from the limitations or other agreed matters referenced in this paragraph.

When the context requires, singular nouns and pronouns include the plural.



PEDRO SANTILLANO

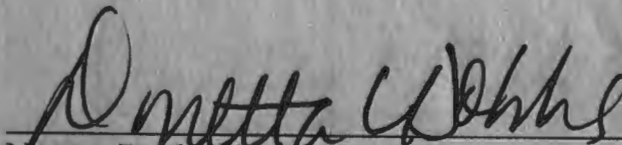
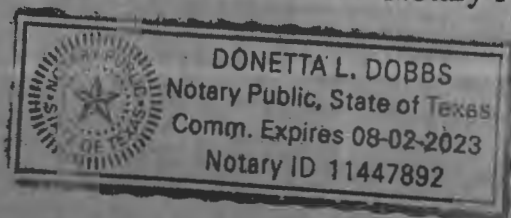


JOSEPHINE SANTILLANO

STATE OF TEXAS)

COUNTY OF BEXAR)

This instrument was acknowledged before me on JANUARY 19, 2020 by PEDRO SANTILLANO and wife, JOSEPHINE SANTILLANO.


Notary Public, State of Texas



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

		114561
Date Received	Initials	Permit Number

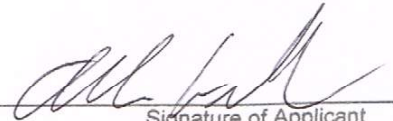
Instructions:

Place a check mark next to all items that apply. For items that do not apply, place "N/A". This OSSF Development Application Checklist must accompany the completed application.

OSSF Permit

- ☐ Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate
- ☐ Site/Soil Evaluation Completed by a Certified Site Evaluator or a Professional Engineer
- ☐ Planning Materials of the OSSF as Required by the TCEQ Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications.
- ☐ Required Permit Fee - See Attached Fee Schedule
- ☐ Copy of Recorded Deed
- ☐ Surface Application/Aerobic Treatment System
 - ☐ Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public
 - ☐ Signed Maintenance Contract with Effective Date as Issuance of License to Operate

I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application.



Signature of Applicant

4-18-22

Date

___ COMPLETE APPLICATION	
Check No. _____	Receipt No. _____

INCOMPLETE APPLICATION ___ (Missing Items Circled, Application Refused)
--